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PATENT & TRADEMARK OFFICE

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Pieper, et al.	Examiner:	NYA
Serial No.:	09/977,~~368~~ 358	Group Art Unit:	1641
Filed:	October 16, 2001		
For:	IMMUNOSUBTRACTION METHOD FOR SAMPLE PREPARATION FOR 2-DGE		

Mail Stop Petition
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

PETITION TO MAKE SPECIAL UNDER 37 CFR 1.102(d)

The Assignee of the above-identified patent application hereby petitions to make this application special pursuant to M.P.E.P. § 708.02, subsection II. Please charge the $130 fee set forth in 37 CFR 1.17(h) and any additional fees to deposit account number 50-1078. This application has not received any examination by the Examiner.

In accordance with the requirements of M.P.E.P. § 708.02, subsection II, part (A), the undersigned alleges that there is an infringing product on the market and method in use. The undersigned further alleges, in accordance with the requirements of M.P.E.P. § 708.02, subsection II, part (B), that, as discussed below, a rigid comparison of the alleged infringing product and method has been made, and some of the claims are unquestionably infringed.

The undersigned further states that a careful and thorough search of the prior art has been performed as required by M.P.E.P. § 708.02, subsection II, part (C). The references deemed most relevant are listed on the enclosed PTO-1449, and copies are provided. The search strategy included the following components.

(A) The following terms or combinations of terms were used to search the full text of issued U.S. patents and published patent applications available in the U.S. Patent and Trademark online database available at URL www.uspto.gov:

(1) negative AND affinity AND chromatography

(2) immunosubtraction

(3) immunodepletion

(4) (multiple OR serial) AND (immunoaffinity OR affinity)

(5) proteomic AND sample

(6) serum AND (protein OR proteome) AND analysis

(7) immunoaffinity AND (multiple OR serial) AND (purification OR albumin OR "high abundance protein")

(8) albumin AND (depletion OR removal)

(9)"albumin depletion"

(10) "high abundance protein" AND (depletion OR removal)

(11) "subtraction" AND "chromatography" AND "affinity"

Titles identified by the above searches were reviewed. The abstract and/or full text of documents whose titles appeared potentially relevant were reviewed. In the case of search (5) the full text of all identified documents was examined to identify those that disclosed use of affinity chromatography for sample preparation. The document reviews for all searches described herein focused on identifying references that disclosed novel methods of sample preparation rather than applications of existing methods to a new source of sample material.

(B) The above terms and combinations of terms were also used to search published PCT applications and European issued patents or published patent applications using the MicroPatent online database available at www.micropat.com. The first search above was performed on the Abstract, Title, and Claim 1 fields. The other searches were performed on the Abstract, Title, and Body fields. The abstract of documents whose titles appeared potentially relevant were reviewed. If the abstract appeared potentially relevant, the full text of the document was obtained and reviewed.

(C) Patents and published patent applications identified as potentially relevant in (A) and (B) were reviewed to determine whether they cited or were cited by other potentially relevant documents in the patent and/or scientific literature. The abstracts of documents identified as

potentially relevant based on their titles were reviewed. If the abstract appeared potentially relevant, the full text of the document was obtained and reviewed.

(D) The above terms and combinations of terms were also used to search PubMed (formerly known as Medline), the National Library of Medicine's online database of scientific articles, available at URL www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=PubMed. Abstracts of articles identified by the searches were reviewed for potential relevance. If the abstract appeared potentially relevant, the full text of the document was obtained and reviewed.

(E) Names of companies known or thought to have an interest in the area of products for sample preparation (e.g., resins, immunoaffinity reagents) were used to search the USPTO online database of U.S. patents and published patent applications and the MicroPatent online database of PCT publications and European patents and patent applications using the "Assignee" or "Assignee/Applicant" field. The company names included Applied Biosystems, Perseptive Biosystems, and Terrapin Technologies. Patents and publications identified by the searches were reviewed for potential relevance.

(F) Names of individuals known or thought to be or have been engaged in research in the area of sample preparation methodology were used to search the USPTO online database of U.S. patents and published patent applications and the MicroPatent online database of PCT publications and European patents and patent applications using the "Inventor" field. These names were also used to search the PubMed (Medline) database. Patents and publications identified by the searches were reviewed for potential relevance.

(G) References identified in the International Search Report for PCT application WO 02/05564, which corresponds to the instant application, are listed on the enclosed PTO-1449.

The claimed invention is drawn to products and methods for selectively removing desired, undesired, and/or abundant ligands such as proteins from a sample, e.g., a sample that is to be used for protein analysis such as gel electrophoresis. In accordance with certain embodiments of the claimed invention, an affinity composition is prepared. According to claim

1, the affinity composition comprises (i) a first solid phase matrix (e.g., beads such as those typically used in column chromatography) to which a first receptor (e.g., an antibody), that binds to a first ligand but not to a second ligand is immobilized; and (ii) a second solid phase matrix to which a second receptor (e.g., an antibody), that binds to a second ligand but not to the first ligand is immobilized. The first and second matrices are in contact with each other, e.g., in a column or other vessel. Further embodiments of the claimed affinity composition include additional solid phase matrices with additional receptors immobilized thereon, wherein the receptor immobilized on each matrix specifically binds to a ligand different from those bound by the receptors immobilized on the other matrices (claims 2 – 4). Additional claims specify that the receptors are antibodies (claim 5) and/or that the ligands are proteins (claim 6).

The claimed invention also includes affinity columns containing the affinity compositions of claims 1-6 (see claims 8-10).

The claimed invention further encompasses methods for removing ligands such as abundant proteins from a sample. According to claim 27, at least two specific, predefined ligands are removed from the sample, e.g., by use of solid phase matrices upon which selected antibodies that specifically bind to known proteins are immobilized. Further claimed methods require removal of at least three or at least four specific, predefined ligands (claims 28 and 29). Claim 30 specifies that the ligands are proteins.

GenWay Biotech, Inc., San Diego, CA, makes and sells a wide variety of IgY antibodies (chicken antibodies harvested from egg yolk, hence the name IgY). As indicated in Exhibit A, consisting of material available on GenWay's web site (at http://www.genwaybio.com/products.htm, accessed approximately January 2004), the company sells many of these antibodies individually conjugated to microspheres (beads). See also Exhibit B, consisting of material available on GenWay's web site (at http://www.genwaybio.com/desktopmodules/Ecommerce/ProductsList.aspx?CategoryID=f4052a31-8a8d-4f75-8c95-b0ad46e24941), accessed May 27, 2004.

The antibody-bead conjugates are referred to as IgY gels. Exhibit A includes the following statement on page 1: "GenWay's technology efficiently covalently conjugates IgY antibodies to microsphere carriers designed for protein separations. This approach provides

many unique characteristics to specifically remove abundant proteins from serum, plasma, CSF, urine or other complex tissue or cellular sources."

As indicated in Exhibit A, page 4 (Table 1. List of IgY Gel Products) GenWay's products include the following:

- (i) Affinity-purified anti-Human Serum Albumin (HSA) IgY gel
- (ii) Affinity-purified anti-Human IgG-Fc IgY gel
- (iii) Affinity-purified anti-Human Fibrinogen IgY gel
- (iv) Affinity-purified anti-Human Transferrin IgY gel
- (v) Affinity-purified anti-Human IgA IgY gel
- (vi) Affinity-purified anti-Human IgM IgY gel

GenWay also sells a "composite IgY gel" referred to as "Mixed6", consisting of antibodies to the above mentioned six proteins conjugated to beads (Exhibit A, page 3, Table 1: List of IgY Gel Products). Exhibit A, Figure 1 (page 2) states that "GenWay's 6-antibody mixture was also shown to separate the target proteins effectively and specifically" and shows an image of a sample "after batch separation with 6 IgY-gel mixtures: containing IgYs against HSA, IgG, IgA, IgM, Fibrinogen and Transferrin".

GenWay additionally manufactures and sells spin columns, referred to as "Mixed6-SC", that contain the "Mixed6" product and are to be used for "specific separation of abundant plasma and serum proteins" (Exhibit B). Exhibit C, consisting of material available on GenWay's web site (at http://www.genwaybio.com/DesktopPage.aspx?TabID=3450&Lang=en-US, accessed May 2004), refers to the Mixed6-SC product as a "composite IgY gel kit, consisting of anti-HSA, anti-IgG, anti-fibrinogen, anti-transferrin, anti-IgA, and anti-IgM".

Although Applicants have not physically examined the "Mixed6" composition, based on the following alleged facts it may be inferred that the "Mixed6" composition contains a combination of individual antibody-bead conjugates, each of which carries an antibody that specifically binds to a different protein. Such a composition would fall within the scope of claim 1 and others.

- (i) GenWay manufactures and sells individual antibody-bead conjugates as separate products
- (ii) The composite gel product is named "Mixed6"
- (iii) The legend of Exhibit A, Figure 1 refers to "6 IgY-gel mixtures"
- (iv) Exhibit A, Figure 1 indicates that additional compositions containing different combinations of bead-antibody conjugates are available, suggesting a flexible manufacturing process such as would be achieved by mixing individual antibody-bead conjugates specific for different proteins.
- (v) Mixed6-SC product, which contains Mixed6, is referred to as a "composite IgY gel kit, consisting of anti-HSA, anti-IgG, anti-fibrinogen, anti-transferrin, anti-IgA, and anti-IgM".

The following table provides a side-by-side comparison of claims 1 – 6, 8 – 10, and 27 – 30 of the instant patent application and Genway's "Mixed6" or "Mixed6-SC" products. Certain key points of comparison are underlined.

Claim	**GenWay's Mixed6 or Mixed6-SC product**
1. An affinity binding composition comprising; a first and second solid phase matrix contacting each other;	"Mixed6" contains beads to which antibodies to six proteins (human serum albumin, IgG, IgA, IgM, fibrinogen and transferrin) are conjugated. (Exhibit A, p. 3). The beads of the Mixed6 composition correspond to the solid phase matrices of claim 1. The beads are in contact with each other since Genway refers to them as a "composite gel" (Exhibit A, Table 1) and a "6-antibody mixture" (Exhibit A, Figure 1 legend).
a first receptor immobilized on said first solid phase matrix, capable of specific binding to a first ligand but not a second ligand; and	Mixed6 contains beads to which an antibody to human serum albumin (HSA) is conjugated (Exhibit A, p. 3). This anti-HSA antibody binds to HSA but presumably not to other human proteins (e.g., transferrin).

a second receptor immobilized on said second solid phase matrix, capable of specific binding to the second ligand but not the first ligand. Note that almost all of the proteins (i.e., albumin, IgG, fibrinogen, transferrin, IgA, and IgM) whose antibodies are present in Mixed6 are listed in the present patent application as receptors capable of binding ligands. For example, Example 1, pp. 28-29 of the instant application describes production of matrices carrying antibodies that bind six abundant proteins found in human serum (i.e., albumin, haptoglobin, transferrin, α-1-antitrypsin, α2-macroglobulin, and apolipoprotein B). Table 1, p. 25, lists additional abundant serum proteins including IgG, IgA, IgM, haptoglobin, and α1-Acid glycoprotein.	Mixed6 contains beads to which an antibody to human transferrin are conjugated (Exhibit A, p. 3). This anti-transferrin antibody binds to transferrin but presumably not to HSA.
2. The affinity binding composition of claim 1 further comprising; a third receptor immobilized on a third solid phase matrix, capable of specific binding to a third ligand but not the first ligand or the second ligand.	Mixed6 contains beads to which an antibody to human fibrinogen are conjugated (Exhibit A, p. 3). This anti-fibrinogen antibody binds to fibrinogen but presumably not to HSA or transferrin.
3. The affinity binding composition of claim 2 further comprising; a fourth receptor immobilized on a fourth solid phase matrix, capable of specific binding to a fourth ligand but not the first ligand, the second ligand or the third ligand.	Mixed6 contains beads to which an antibody to human IgA are conjugated (Exhibit A, p. 3). This anti-IgA antibody binds to human IgA but presumably not to HSA, transferrin, or fibrinogen.
4. The affinity binding composition of claim 3 further comprising; a fifth receptor immobilized on a fifth solid phase matrix, capable of specific binding to a fifth ligand but not the first ligand, the second ligand, the third ligand or the fourth ligand.	Mixed6 contains beads to which an antibody to human IgM are conjugated (Exhibit A, p. 3). This anti-IgM antibody binds to human IgM but presumably not to HSA, transferrin, fibrinogen, or IgA.

5. The affinity binding composition of claim 1 wherein the ligands are proteins.	Mixed6 contains antibodies that bind to human serum albumin, IgG, IgA, IgM, fibrinogen and transferrin, all of which are proteins.
6. The affinity binding composition of claim 1 wherein the receptors are antibodies.	Mixed6 contains antibodies conjugated to beads.
8. An affinity column comprising: a chamber having a fluid inlet and outlet and within the chamber the affinity binding composition of claim 1 such that fluid flowing from the inlet to the outlet passes by or through the affinity binding composition.	Mixed6-SC is a column containing Mixed6, which falls within the limitations of claim 1 (see comparison for claim 1, above). The column is a chamber having a fluid inlet and outlet for loading and collecting sample, respectively.
9. An affinity column comprising: a chamber having a fluid inlet and outlet and within the chamber the affinity binding composition of claim 2 such that fluid flowing from the inlet to the outlet passes by or through the affinity binding composition.	Mixed6-SC is a column containing Mixed6, which falls within the limitations of claim 2 (see comparison for claim 2, above). The column is a chamber having a fluid inlet and outlet for loading and collecting sample, respectively.
10 . An affinity column comprising: a chamber having a fluid inlet and outlet and within the chamber the affinity binding composition of claim 6 such that fluid flowing from the inlet to the outlet passes by or through the affinity binding composition.	Mixed6-SC is a column containing Mixed6, which falls within the limitations of claim 6 (see comparison for claim 6, above). The column is a chamber having a fluid inlet and outlet for loading and collecting sample, respectively.
29. The method of claim 28 wherein at least four ligands are removed.	Mixed6 contains antibodies (receptors) that remove 6 predefined proteins (ligands) from a sample. Human serum albumin, transferrin, and fibrinogen are exemplary first, second, and third proteins (ligands). IgA is an exemplary fourth protein (ligand).
30. The method of claim 27 wherein the ligands are proteins.	Mixed6 contains antibodies that bind to human serum albumin, IgG, IgA, IgM, fibrinogen and transferrin, all of which are proteins.

Based on the comparison above Applicants submit that the "Mixed6" composition infringes claims 1 – 6, 8-10, and 27 - 30 of the instant patent application.

It is further submitted that GenWay is either selling additional infringing products or is inducing its customers to produce infringing products and practice infringing methods by purchasing individual IgY gels and mixing them together in the same column, as suggested and shown in Exhibit A, Figure 1. Figure 1 contains text advertising that "Two Columns-Two Steps Separate 6 Abundant Proteins from Plasma" and shows what appear to be two tubes with "GenWay" labels, each containing beads, and two columns into which the beads are to be dispensed. Since 6 proteins are to be removed using two columns, it may be inferred that one of the columns must contain a mixture of at least 3 antibody-bead conjugates containing antibodies that bind to different proteins, thereby satisfying the limitations of claims 1, 2, 5, 6, and 27 – 30.

In summary, Applicants submit that the enclosed evidence establishes that at least some of the pending claims in U.S.S.N. 09/977,368 are infringed. It is submitted that all of the elements set forth in M.P.E.P. §708.02 subsection II have now been provided in this petition to make special. It is requested that this petition be granted and that the pending claims be examined as soon as possible. It is noted that selection of particular claims for discussion herein is not intended to imply that additional claims are not infringed.

Please charge any fees that may be associated with this matter, or credit any overpayments, to Deposit Account No. 50-1078. Should any questions arise in connection with this petition to make special, please call the attorney whose name appears below.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313
on 6-7-04
Sandra Saraccia

Atty. Docket No.: 10030634-2
CHS No.: 2003309-0061

Products

New Product Line:
IgY Gels (for Protein Separation and Sample Preparation)

Total IgY Antibodies (total IgYs)
Affinity-Purified IgY Antibodies (affinity-pure IgYs)
Secondary Antibodies (anti-IgY antibodies)
Antibody Conjugates (for different assays)
Recombinant Antigens (for testing control)
Recombinant Proteins (for assays and target characterization)

IgY-Gels for Protein Separation and Sample Preparation

IgY antibodies are particularly suitable for protein separations. GenWay's technology efficiently covalently conjugates IgY antibodies to microsphere carriers designed for protein separations. This approach provides many unique characteristics to specifically remove abundant proteins from serum, plasma, CSF, urine or other complex tissue or cellular sources. By eliminating the great majority of the background proteins, these products enable far more sensitive detection of important -- but rare -- protein biomarkers.

GenWay's polyclonal IgY gels have stronger binding capability, more specificity, and better separation efficiency than IgG (Figures 1-2).

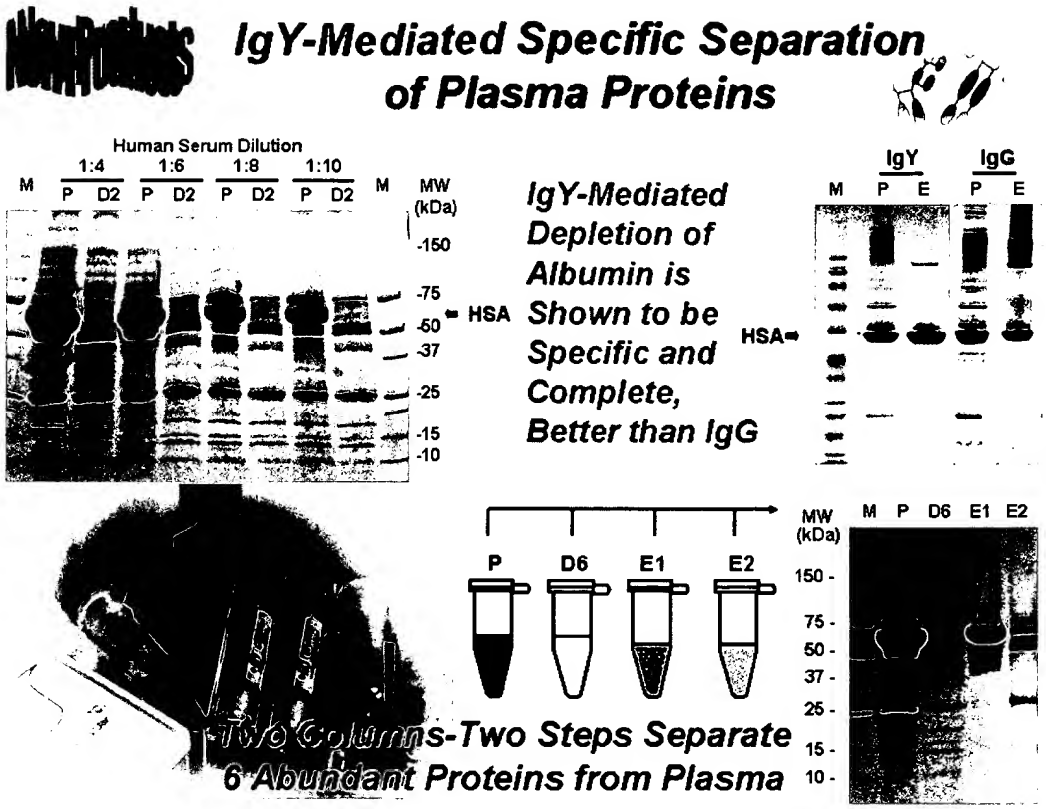

Figure 1. IgY gels (microbeads) for specifically removing abundant plasma proteins. *Shown are GenWay's anti-HSA (Human Serum Albumin) gel effectively and specifically separating the target from the plasma sample. The results demonstrate IgY has better specificity and efficiency that IgG. GenWay's 6-antibody mixture was also shown to separate the target proteins effectively and specifically. P: human plasma sample. D6: after batch separation with 6 IgY-gel mixtures: containing IgYs against HSA, IgG, IgA, IgM, Fibrinogen and Transferrin. E1: eluted bound proteins from anti-HSA gel. E2: eluted bound proteins from mixed gel with 6 IgYs.*

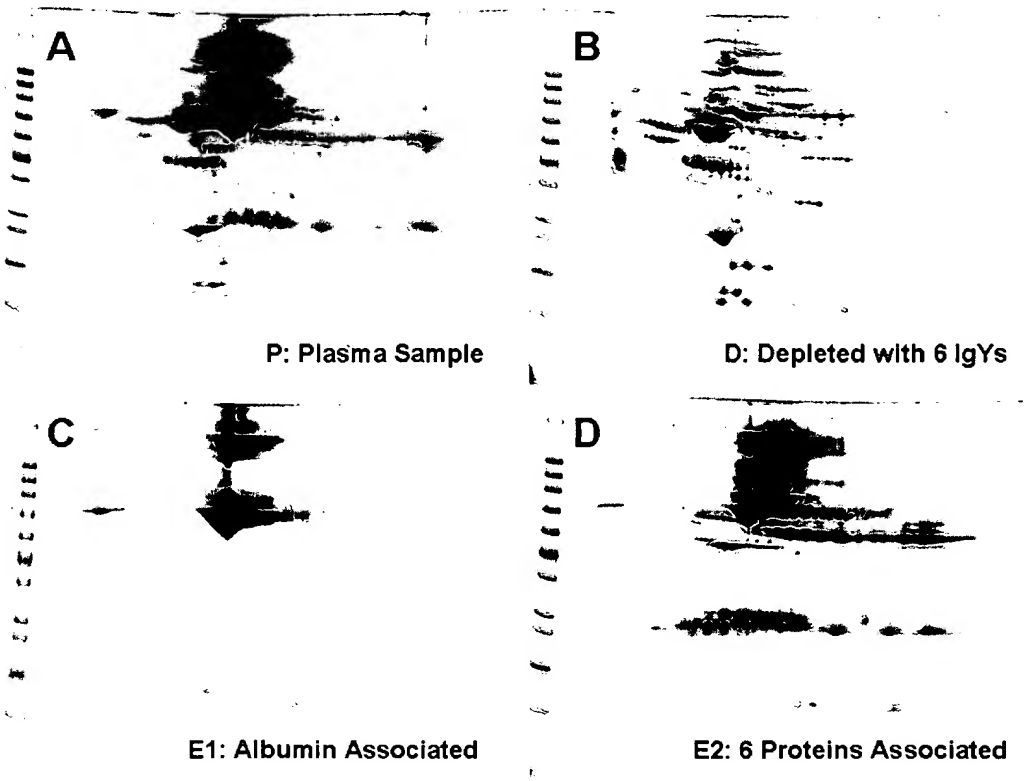

Figure 2. Two-dimensional gel analysis of 6 abundant plasma protein

separation. *Shown are 2D gel analysis of GenWay's 6-antibody mixture separating the target proteins from plasma samples.*

One further unique feature of IgY antibodies is they have broader antigen-binding host range, due to the great evolutionary distance between chickens and mammals. GenWay's products efficiently remove serum albumin and other abundant proteins from many mammalian sera, including rat, mouse, goat, pig and dog (Figure 3). The results are critical for toxico-proteomics applications and validation of animal disease models.

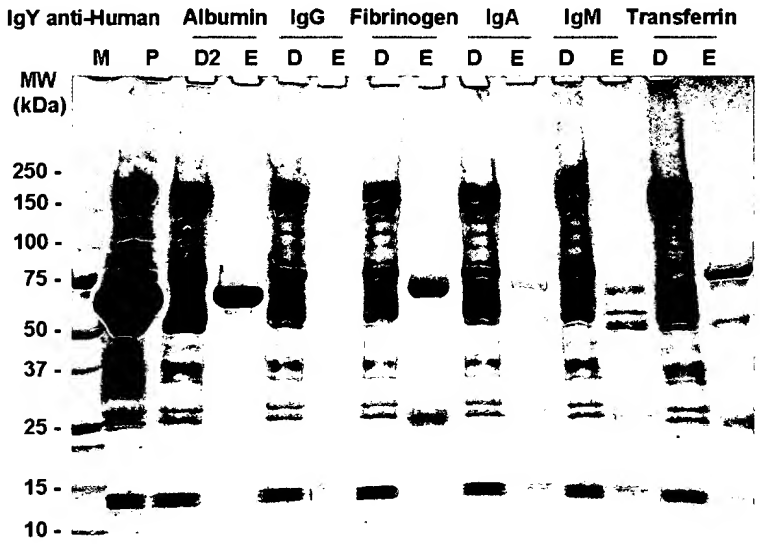

Figure 3. Effective separation of abundant proteins from rat plasma using IgYs against human proteins. *Six IgY antibodies against human proteins Albumin, IgG, Fibrinogen, IgA, IgM, and Transferrin, were used sequentially. P: 1:8 diluted rat plasma before separation. D2: after batch separation with two cycles of anti-HSA gel. D: further separation with the corresponding IgY gels.*

Generally, GenWay's IgY-based protein separation products are highly satisfactory and useful for the sample preparation of proteomic studies. Our products have the following specific features:

- Higher Specificity and Avidity
- Greater Capacity
- Multiple-Species Applicable
- Recyclable (at least more than 30x)
- Relatively Lower Cost
- Reliable Supply

Table 1. List of IgY Gel Products

Catalog #	Description	Unit Quantity
MIXED6 - G0007	Composite IgY gel, consisting of anti-**HSA** anti-**IgG** anti-**IgA** anti-**IgM** anti-**Fibrinogen** anti-**Transferrin** **Capacity:** 30μl Plasma or Serum.	7.5 mg (1mg IgY in 0.2 ml gel)
A10067-G0001		1 mg

A10067-G0010 A10067-G0020	Affinity-purified anti-**Human Serum Albumin** (**HSA**) IgY gel	10 mg 20 mg
A20083-G0001 A20083-G0010 A20083-G0020	Affinity-purified anti-Human **IgG-Fc** IgY gel	1 mg 10 mg 20 mg
A22856-G0001 A22856-G0010 A22856-G0020	Affinity-purified anti-Human **Fibrinogen** IgY gel	1 mg 10 mg 20 mg
A20009-G0001 A20009-G0010 A20009-G0020	Affinity-purified anti-Human **Transferrin** IgY gel	1 mg 10 mg 20 mg
A20082-G0001 A20082-G0010 A20082-G0020	Affinity-purified anti-Human **IgA** IgY gel	1 mg 10 mg 20 mg
A20086-G0001 A20086-G0010 A20086-G0020	Affinity-purified anti-Human **IgM** IgY gel	1 mg 10 mg 20 mg

Additional IgY gel products to be released soon individually, and included in composite column. Please check for availability:

- anti-α2-Macroglobulin (A20008-G)
- anti-α1-Antitrypsin (A10066-G)
- anti-Haptoglobin (A20080-G)
- anti-Apolipoprotein A1 (A20069-G)
- anti-Complement C3 (A20073-G)
- anti-α1-Acid glycoprotein (A22868-G)

Total IgY Antibodies

GenWay's total IgY antibodies are listed in alphabetical order of target proteins (on a separate page). Please click the following hyperlink to access the **Total IgY Antibody List** and further click the initial letter of the Search Index Table to locate the product of interest.

Total IgY Antibody List

Affinity-Purified IgY Antibodies

For the purpose of assays that need higher titer antibodies, such as for antibody chip applications, further-purified specific IgYs are needed. The Company has developed a library of affinity-pure IgY antibodies by using an antigen-affinity column. The following hyperlink provides the access to the Affinity-Pure IgY Antibody List.

Affinity-Purified IgY Antibody List

Secondary Antibodies

To facilitate various types of immunoassays, GenWay has developed a portfolio of secondary antibodies and their conjugates for detecting the protein targets bound by the primary IgY antibodies (Tables 2 and 3).

Seppro-TM (IgY Gels)

Product Name	Catalog Number	Price	Unit Size
Affinity-Purified Anti-Bovine Serum Albumin (BSA) IgY gel	A22930-G10	$850.00	1ml Kit
Anti-a1-Acid Glycoprotein (Orosomucoid) IgY Gel, Antibodies, Affinity-purified	A22868-G10	$1,900.00	2ml Bulk Gel
Anti-a1-Antitrypsin IgY Gel, Antibodies, Affinity-purified	A10066-G10	$1,900.00	2ml Bulk Gel
Anti-a2-Macroglobulin IgY Gel, Antibodies, Affinity-purified	A20008-G10	$1,900.00	2ml Bulk Gel
Anti-Albumin IgY Gel, Antibodies, Affinity-purified	A10067-G10	$850.00	2ml Bulk Gel
Anti-Apolipoprotein A-I IgY Gel, Antibodies, Affinity-purified	A20069-G10	$1,900.00	2ml Bulk Gel
Anti-Fibrinogen IgY Gel, Antibodies, Affinity-purified	A22856-G10	$950.00	2ml Bulk Gel
Anti-Haptoglobin IgY gel, Antibodies, Affinity-purified	A20080-G10	$1,900.00	2ml Bulk Gel
Anti-High Density Lipoprotein (HDL) IgY gel , Antibodies, Affinity-purified	A20088-G10	$1,900.00	2ml Bulk Gel
Anti-IgA IgY gel, Antibodies, Affinity-purified	A20082-G10	$1,900.00	2ml Bulk Gel
Anti-IgG-Fc IgY Gel, Antibodies, Affinity-purified	A20083-G10	$1,100.00	2ml Bulk Gel
Anti-IgM IgY Gel, Antibodies, Affinity-purified	A20086-G10	$1,900.00	2ml Bulk Gel

Anti-Transferrin IgY Gel, Antibodies, Affinity-purified	A20009-G10	$950.00	2ml Bulk Gel
Dilution Buffer	DB-100	$15.00	100 ml
Empty Spin Columns with end-caps	SC-20	$40.00	20 x 1.2ml
MIXED12 IgY gel	MIXED12-G10	$1,600.00	2ml Bulk Gel
MIXED12-Spin Column Kit	MIXED12-SC	$825.00	1ml Kit
MIXED6 IgY Gel	MIXED6-G10	$1,350.00	2ml Bulk Gel
Neutralization Buffer	NB-30	$8.00	30 ml
Pre-packed Affinity-Purified Anti-a1-Acid Glycoprotein (Orosomucoid) IgY Gel Kit	A22868-SC	$975.00	1ml Kit
Pre-packed Affinity-Purified Anti-a1-Antitrypsin IgY Gel Kit	A10066-SC	$975.00	1ml Kit
Pre-packed Affinity-Purified Anti-a2-Macroglobulin IgY Gel Kit	A20008-SC	$975.00	1ml Kit
Pre-packed Affinity-Purified Anti-Albumin IgY Gel Kit	A10067-SC	$450.00	1ml Kit
Pre-packed Affinity-Purified Anti-Apolipoprotein A-I IgY Gel Kit	A20069-SC	$975.00	1ml Kit
Pre-packed Affinity-Purified Anti-Bovine Serum Albumin (BSA) IgY gel	A22930-SC	$450.00	1ml Kit
1 2			

Table 2: Seppro™ Price List

Specific Separation of Abundant Plasma and Serum Proteins: Antigen Affinity-Purified IgY Antibody Gels and Spin-Column Kits

(15 May 2004)

Covalently conjugated through antibody Fc portion to microbeads (60µm bead diameter).
Under proper conditions, gels can be recycled at least 20 times.

	PART #	QTY	DESCRIPTION	CAPACITY (Plasma/Serum per 1ml gel)	UNIT PRICE
1	**MIXED12-SC MIXED12-G10 (New Release)**	1ml Spin Column Kit 2ml IgY gel	Composite IgY gel kit, consisting of anti-**HSA**, anti-**IgG**, anti-**Fibrinogen**, anti-**Transferrin**, anti-**IgA**, anti-**IgM**, anti-**Apo A-I**, anti-**Apo A-II**, anti-**Haptoglobin**, anti-α**1-Antitrypsin**, anti-α**1-Acid Glycoprotein** & anti-α**2-Macroglobulin.** *Targeted to specifically remove >95% of proteins from human plasma or serum.*	10µl	$825 $1,600
2	**MIXED6-SC MIXED6-G10**	1ml Spin Column Kit 2ml IgY gel	Composite IgY gel kit, consisting of anti-**HSA**, anti-**IgG**, anti-**Fibrinogen**, anti-**Transferrin**, anti-**IgA** & anti-**IgM.**	10µl	$700 $1,350
3	**A10067-SC A10067-G10**	1ml Spin Column Kit 2ml IgY gel	Affinity-purified anti-Human **Serum Albumin (HSA)** IgY gel. *(Enables efficient Albuminomics™)*	20µl	$450 $850
4	**A20083-SC A20083-G10**	1ml Spin Column Kit 2ml IgY gel	Affinity-purified anti-Human **IgG-Fc** IgY gel	60-80µl	$650 $1,100
5	**A22856-SC A22856-G10**	1ml Spin Column Kit 2ml IgY gel	Affinity-purified anti-Human **Fibrinogen** IgY gel	125-150µl	$550 $950
6	**A20009-SC A20009-G10**	1ml Spin Column Kit 2ml IgY gel	Affinity-purified anti-Human **Transferrin** IgY gel	125-150µl	$550 $950
7	**A20082-SC A20082-G10**	1ml Spin Column Kit 2ml IgY gel	Affinity-purified anti-Human **IgA** IgY gel	125-150µl	$975 $1,900
8	**A20086-SC A20086-G10**	1ml Spin Column Kit 2ml IgY gel	Affinity-purified anti-Human **IgM** IgY gel	125-150µl	$975 $1,900
9	**A20069-SC A20069-G10**	1ml Spin Column Kit 2ml IgY gel	Affinity-purified anti-Human **Apolipoprotein A-I** IgY gel	75-100µl	$975 $1,900
10	**A20088-SC A20088-G10**	1ml Spin Column Kit 2ml IgY gel	Affinity-purified anti-Human **High Density Lipoprotein (HDL)** IgY gel	50-75µl	$975 $1,900
11	**A20080-SC A20080-G10**	1ml Spin Column Kit 2ml IgY gel	Affinity-purified anti-Human **Haptoglobin** IgY gel	50-75µl	$975 $1,900
12	**A10066-SC A10066-G10**	1ml Spin Column Kit 2ml IgY gel	Affinity-purified anti-Human α**1-Antitrypsin** IgY gel	125-150µl	$975 $1,900
13	**A22868-SC A22868-G10**	1ml Spin Column Kit 2ml IgY gel	Affinity-purified anti-Human α**1-Acid Glycoprotein** (Orosomucoid) IgY gel	125-150µl	$975 $1,900
14	**A20008-SC A20008-G10**	1ml Spin Column Kit 2ml IgY gel	Affinity-purified anti-Human α**2-Macroglobulin** IgY gel	125-150µl	$975 $1,900
15	**A22930-SC A22930-G10**	1ml Spin Column Kit 2ml IgY gel	Affinity-purified anti-**Bovine Serum Albumin (BSA)** IgY gel.		$450 $850